

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A load distributing method comprising the step steps of:

~~path selection or path selection priority update for a pair of nodes, between which plural communication paths can be selected, upon every packet input to a transmission node, based on path status information on a selectable path, based on a time or identification information on a transmitted packet from which said path status information is effective, and based on a transmission history after the time from which said path status information is effective or a transmission history after transmission of the packet specified with transmitted packet identification information~~

monitoring a path status of each path selectable of every packet input to a transmission node between two nodes, each of which can select plural communication paths, and storing path status information on said path status and a time from which said path status information is effective or packet identification information;

estimating a packet arrival prediction time in each path, based on path status information, and a packet transmission history after the time from which said path status information is effective or a packet transmission history after transmission of a packet specified with said packet identification information; and

updating path selection or selection priority, based on said estimated arrival prediction time.

2. (Cancelled).

3. (Original) The load distributing method defined in Claim 1, wherein said path status information includes a delay of a path.

4. (Original) The load distributing method defined in Claim 1, wherein said path status information includes a transmission rate of a path.

5. (Original) The load distributing method defined in Claim 1, wherein said path status information includes a load of a path.

6. (Previously Presented) The load distributing method defined in Claim 1, further comprising the step of correcting a transmission cost calculation result regarding a packet transmitted before updating path status information of each path, when the path status information is updated for said path selection or for said selection priority update.

7. (Previously Presented) The load distributing method defined in Claim 6, further comprising the step of discarding a history prior to a first packet transmitted on or after a time from which latest path status information is effective, when a transmission cost calculation result of each path is corrected.

8. (Original) The load distributing method defined in Claim 1, further comprising the step of selecting as a packet transmission path a path having an earliest estimation value of a reception completion time at a reception node.

9. (Original) The load distributing method defined in Claim 1 further comprising the step of selecting as a packet transmission path a path having a largest estimation value of a data amount, which can be completely received by a specific time at a reception node.

10. (Original) The load distributing method defined in Claim 1, further interrupting data transmission according to an estimated current path status in each path.

11. (Original) The load distributing method defined in Claim 10, wherein a condition for interruption of said data transmission is that an estimated reception completion time is equal to or greater than a specific value.

12. (Original) The load distributing method defined in Claim 1, wherein path selection or transmission interruption is determined according to a policy different for each attribute of transmission data.

Claims 13-14. (Cancelled).

15. (Previously Presented) A node for selecting plural packet transmission paths, comprising:

monitor means for monitoring a selectable path status of each path every packet input at a transmission node and monitoring path status information on the path status and a time from which the path status information is effective or packet identification information;

memory means for storing said path status information and a packet transmission history available after said path status information is validated;

scheduling means for estimating an arrival prediction time of a packet in each path based on said path status information and based on a packet transmission history after said path status information is validated and updating path selection or selection priority based on said estimated arrival prediction time.

16. (Original) The node defined in Claim 15, wherein said path status information includes a delay of a path.

17. (Original) The node defined in Claim 15, wherein said path status information includes a transmission rate of a path.

18. (Original) The node defined in Claim 15, wherein said path status information includes a load of a path.

19. (Previously Presented) The node defined in Claim 15, wherein said scheduling means corrects a transmission cost calculation result regarding a packet transmitted prior or updating when path status information of each path is updated in the updating of said path selection or said selection priority.

20. (Original) The node defined in Claim 19, wherein said scheduling means discards a history before a first transmitted packet validating latest path status information when a transmission cost calculation result of each path is corrected.

21. (Original) The node defined in Claim 15, wherein said scheduling means selects as a packet transmission path a path having an earliest estimation value of a reception completion time at a reception node.

22. (Original) The node defined in Claim 15, wherein said scheduling means selects as a packet transmission path a path having a largest estimation value of a data amount which can be completely received by a specific time at a reception node.

23. (Original) The node defined in Claim 15, wherein said scheduling means interrupts data transmission according to an estimated current path status for each path.

24. (Original) The node defined in Claim 23, wherein a condition for interruption of said data transmission is that an estimated reception completion time is equal to or greater than a specific value.

25. (Original) The node defined in Claim 15, wherein said scheduling means determines the interruption of path selection or transmission according to a policy different every attribute of a transmission data.

26. (Previously Presented) The node defined in Claim 15, further comprising:

a table in which an address of a communications interface is associated with a destination address reachable using said communications interface; and

routing means for selecting a communications interface corresponding to a destination address of a packet to be transmitted, from said table, selecting a communications interface corresponding to a transmission source address or a communication interface from said selected communications interface when said transmission packet has a information specifying the transmission source address or a communications interface, and sending said transmission packet to a selected communications interface.

27. (Cancelled).

28. (Currently Amended) A non-transitory computer-readable medium storing a node control program, which is applicable to a processor-controlled node that can select plural packet transmission paths, said node control program controlling the node to:

monitor a selectable path status of each path for each packet input to a transmission node and monitoring path status information on said path status and identification information on time or packet validating said path status information; and

estimate a packet arrival prediction time in each path based on said path status information and based on a transmission history of a packet after said path status information is validated and update path selection or selection priority based on said estimated arrival prediction time.

29. (Currently Amended) The non-transitory computer-readable medium defined in Claim 28 wherein said path status information includes a delay of a path.

30. (Currently Amended) The non-transitory computer-readable medium defined in Claim 28, wherein said path status information includes a transmission rate of a path.

31. (Currently Amended) The non-transitory computer-readable medium defined in Claim 28, wherein said path status information includes a load of a path.

32. (Currently Amended) The non-transitory computer-readable medium defined in Claim 28, said node control program further controlling said node to correct a transmission cost calculation result regarding a packet transmitted prior or updating when path status information of each path is updated in the updating of said path selection or said selection priority.

33. (Currently Amended) The non-transitory computer-readable medium defined in Claim 32, said node control program further controlling said node to discard a history before a first transmitted packet validating latest path status information when a transmission cost calculation result of each path is corrected.

34. (Currently Amended) The non-transitory computer-readable medium defined in Claim 28, said node control program further controlling said node to select as a packet transmission path a path having an earliest estimation value of a reception completion time at a reception node.

35. (Currently Amended) The non-transitory computer-readable medium defined in Claim 28, said node control program further controlling said node to select as a packet transmission path a path having a largest estimation value of a data amount which can be completely received by a specific time at a reception node.

36. (Currently Amended) The non-transitory computer-readable medium defined in Claim 28, said node control program further controlling said scheduling means so as to interrupt data transmission according to an estimated current path status for each path.

37. (Currently Amended) The non-transitory computer-readable medium defined in Claim 36, wherein a condition for interruption of said data transmission is that an estimated reception completion time is equal to or greater than a specific value.

38. (Currently Amended) The non-transitory computer-readable medium defined in Claim 28, said node control program further controlling said scheduling means so as to determine path selection or transmission interruption according to a policy different every attribute of transmission data.

39. (Currently Amended) The non-transitory computer-readable medium defined in Claim 28, said node control program further causing said node to operate as routing means that:

selects a communications interface corresponding to a destination address of a packet to be transmitted, from a table in which an address of a communications interface is associated with a destination address reachable using said communications interface,

selects a communications interface corresponding to said a transmission source address or a communications interface, from said selected communications interface when said transmission packet has information specifying a transmission source address or a communications interface, and

transmits said packet to be transmitted, to say selected communications interface.

Claims 40-42. (Cancelled).